

ABSTRACT

A substantially annular electrical contact (12) has an inside dimension (14) and an outside dimension (16). A preferred material for the contact (12) is phosphorus-bronze. The inside dimension (14) is provided with a plurality of contact beams (18). The outside dimension (16) is provided with a plurality of retention beams (20). The contact beams and the retention beams are spaced alternately from one another. A wire-receiving trough (21) is provided between two of the retention beams and extends away from the annulus. A substantially cup-shaped electrically insulating insert (22) (see Fig. 3) is also provided and comprises an interior wall (26) and an exterior wall (28). A preferred material for the insert is polypropylene. The interior wall (26) is provided with pockets (30) for receiving the contact beams (18) and the exterior wall (28) is provided with pockets (32) for receiving the retention beams (20). One end of the pockets (32) is provided with an undercut (32a) to receive a reentrant portion (20a) formed on the retention beams (20). The space between the pockets (30) includes ribs (31), which limit the deflection of the contact beams (18). The contact (12) and the insert (22) are mated to form a subassembly (24). The contact beams (18) are fitted into the pockets (30) and the retention beams (20) are accommodated within the pockets (32) with the reentrant portions (20a) engaged with the undercuts (32a) for a secure attachment. The subassembly (24) is then placed in a mold and overmolded with a suitable electrically insulating material to produce a body (34) completely covering the external wall (28) of the insert (22) and forming the electrical connector (10).